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PRE-APPEAL BRIEF REQUEST FOR REVIEW		Docket Number (Optional) 02-5695 81564															
<p>I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)]</p> <p>on _____</p> <p>Signature _____</p> <p>Typed or printed name _____</p>		<p>Application Number 10/663,218</p> <p>Filed 09/15/2003</p> <p>First Named Inventor ABERCROMBIE, David</p> <p>Art Unit 2129</p> <p>Examiner Bharadwaj, Kalpana</p>															
<p>Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.</p> <p>This request is being filed with a notice of appeal.</p> <p>The review is requested for the reason(s) stated on the attached sheet(s). Note: No more than five (5) pages may be provided.</p>																	
<p>I am the</p> <table> <tr> <td><input type="checkbox"/></td> <td>applicant/inventor.</td> <td>/ Eric James Whitesell /</td> </tr> <tr> <td><input type="checkbox"/></td> <td>assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)</td> <td>Signature Eric J. Whitesell, #38657</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>attorney or agent of record. Registration number _____</td> <td>Typed or printed name 858-350-9257</td> </tr> <tr> <td><input type="checkbox"/></td> <td>attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____</td> <td>Telephone number 12/07/2007</td> </tr> <tr> <td colspan="3">Date</td> </tr> </table> <p>NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.</p>			<input type="checkbox"/>	applicant/inventor.	/ Eric James Whitesell /	<input type="checkbox"/>	assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)	Signature Eric J. Whitesell, #38657	<input checked="" type="checkbox"/>	attorney or agent of record. Registration number _____	Typed or printed name 858-350-9257	<input type="checkbox"/>	attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____	Telephone number 12/07/2007	Date		
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This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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BRIEF IN SUPPORT OF PRE-APPEAL REQUEST FOR REVIEW

In response to the final office action mailed on 08/10/2007 and the advisory action mailed on 10/26/2007, please enter the following brief in support of the attached pre-appeal request for review. A notice of appeal, a petition for an extension of time, and the fees therefor are submitted herewith.

ARGUMENTS***The rejection fails to show that Wang discloses cleaning the data set***

Regarding the rejection of Claims 1 and 8, the rejection (P3) errs in alleging that *Wang* (C01 L55) discloses the claimed step of cleaning the data set of measurements. The rejection (P5) argues that analyzing data in *Wang* (C01 L55) is equivalent to cleaning data as recited in Claims 1 and 8, presumably because principal component analysis is suggested in *Wang*. However, analyzing data to detect a fault condition as described in *Wang* (C01 L55) is not equivalent to cleaning data. As explained in the specification (P09 L25-28), the claimed step of cleaning the data set means omitting abnormal samples from the data set to avoid introducing error. Clearly, data may be analyzed to detect a fault condition without necessarily omitting abnormal samples from the data set. Conversely, abnormal samples may be omitted from a data set without necessarily detecting a fault condition. Accordingly, analyzing data to detect a fault condition as described in *Wang* (C01 L55) and cleaning data as recited in Claims 1 and 8 are not even dependent on each other. Because analyzing data is independent from cleaning data, clearly analyzing data is not equivalent to cleaning data. The rejection (P5) apparently compares the term “analysis” used by *Wang* to refer to fault detection with the phrase “principal component analysis” and concludes that analyzing data to detect a fault is equivalent to principal component analysis simply because the term “analysis” appears in both contexts. Clearly, the coincidental appearance of the term “analysis” lacks reasonable technical basis to conclude that analyzing data to detect a fault condition is equivalent to principal component analysis. The rejection further alleges that Claims 1 and 8 recite the limitation of cleaning the data set as an

equivalent to principal component analysis, which is clearly not true, because cleaning the data set is performed prior to principal component analysis in Claims 1 and 8. Accordingly, the allegations relied on to support the rejection are shown to be erroneous. Because the allegations relied on to support the rejection are erroneous, the rejection fails to establish that *Wang* (C01 L55) discloses the claimed step of cleaning the data set of measurements. Because the rejection fails to establish that *Wang* (C01 L55) discloses the claimed step of cleaning the data set of measurements, the rejection of Claims 1 and 8 lacks sufficient support to substantiate a rejection under 35 U.S.C. § 102(b).

Further, *Wang* (C01 L55) cited by the rejection (P3) and the abstract explain that an abnormality in the data is found by comparing the data set with model reference data to detect a fault condition. Accordingly, *Wang* (C01 L55) teaches that abnormal data is necessary to detect a fault condition. Clearly, *Wang* teaches away from cleaning the data, i.e., removing the abnormal data from the data set. If *Wang* removed abnormal data from the data set as alleged by the rejection, then *Wang* could not detect a fault condition as described. In other words, if the allegation relied on to support the rejection were correct, then *Wang* would be inoperable. Clearly, *Wang* teaches that abnormal data is necessary to detect a fault condition. Because removing the abnormal data as alleged by the rejection would render *Wang* inoperable, the allegation relied on to support the rejection is shown to be erroneous. Because the allegation relied on to support the rejection is erroneous, the rejection fails to show that *Wang* discloses removing abnormal data from the data set. Because the rejection fails to show that *Wang* discloses removing abnormal data from the data set, the rejection fails to show that *Wang* discloses the claimed step of cleaning the data set of measurements. Because the rejection fails to show that *Wang* discloses the claimed step of cleaning the data set of measurements, the rejection of Claims 1 and 8 lacks sufficient support to substantiate a rejection under 35 U.S.C. § 102(b).

The rejection fails to show that Wang discloses generating a principal component analysis basis from the cleaned data set

The rejection (P3) further alleges that *Wang* (C14 L13, 40) discloses the claimed step of generating a principal component analysis basis from the cleaned data set. However, the rejection fails to show that *Wang* discloses the claimed step of cleaning the data set as explained above. Because the rejection fails to show that *Wang* discloses the claimed step of cleaning the data set, the rejection also fails to show that *Wang* discloses the claimed step of generating a principal component analysis basis from the cleaned data set. Because the rejection fails to establish that *Wang* discloses the claimed step of generating a principal component analysis basis from the cleaned data set, the rejection of Claims 1 and 8 lacks sufficient support to substantiate a rejection under 35 U.S.C. § 102(b).

The rejection fails to show that Wang discloses removing a component from the principal component analysis basis when the calculated percentages of variance indicate that the component is a minor component

The rejection (P4) further alleges that *Wang* (C14 L13-14; F3B: PCAmodel, fault detector, alarm file, lot report) discloses the claimed step of removing a component from the principal component analysis basis when the calculated percentages of variance indicate that the component is a minor component. However, *Wang* (C14 L13-14) simply makes reference to reduction of a data set, which does not necessarily require removing a component from the principal component analysis basis. The rejection (P6) argues that principal component analysis compresses the data and that the data compression is equivalent to removing a minor component from the principal component analysis basis. This argument is clearly erroneous, because the claimed minor principal component recited in Claims 1 and 8 is present after the principal component analysis basis is generated and is subsequently removed from the principal component analysis basis. If the claimed minor principal component were already removed by performing the principal component analysis as alleged by the rejection, then there would be no minor component to remove after performing the principal component analysis. Accordingly, the argument relied on to support the rejection is shown to be erroneous. Because the argument relied on to support the rejection is shown to be erroneous, the rejection fails to show that *Wang*

discloses the claimed step of removing a component from the principal component analysis basis when the calculated percentages of variance indicate that the component is a minor component.

Further, the rejection (P4) fails to establish any relevance of *Wang* (F3B: PCA model, fault detector, alarm file, lot report) to the claimed step of removing a component from the principal component analysis basis. Because the rejection fails to establish that *Wang* discloses the claimed step of removing a component from the principal component analysis basis when the calculated percentages of variance indicate that the component is a minor component, the rejection of Claims 1 and 8 lacks sufficient support to substantiate a rejection under 35 U.S.C. § 102(b).

The rejection fails to show that Wang discloses generating the estimated independent component analysis model excluding the minor component

The rejection (P4) further alleges that *Wang* (C14 L17; Abstract) discloses the claimed step of generating as output the estimated independent component analysis model excluding the minor component. However, *Wang* (C14 L17) discloses modeling a linear relationship of variables from a process, not the claimed step of generating as output the estimated independent component analysis model excluding the minor component as alleged by the rejection. The rejection (P6) argues that generating the claimed estimated independent component analysis model excluding the minor component is inherent in detecting a fault condition as disclosed in *Wang*. However, the rejection fails to provide support for the allegation that detecting a fault requires excluding a minor component from the component analysis model, and there is no technical reasoning presented to support the rejection that would justify such a conclusion. Accordingly, the rejection fails to establish that generating the claimed estimated independent component analysis model excluding the minor component is inherent in *Wang*. Because the rejection fails to establish that generating the claimed estimated independent component analysis model excluding the minor component is inherent in *Wang*, the rejection of Claims 1 and 8 lacks sufficient support to substantiate a rejection under 35 U.S.C. § 102(b).

The rejection (P5, 6) further alleges that *Wang* (C14 L7-23) discloses the claimed

step of identifying a corresponding physical mechanism, for example, a “signal health value”, from the estimated independent component analysis model as recited in Claims 1 and 8. However, *Wang* (C14 L1-6) defines a signal health value as a difference between a prediction and a current sample. In contrast to *Wang*, the claimed physical mechanism is described in the specification (P24 L09 - P25 L02) as attributes of a manufacturing process, for example, a lateral diffusion mechanism, channel implant characteristics, and implant variation, none of which include the prediction required by *Wang*. The PTO has not presented any evidence or reasoning to the contrary. The advisory action merely dismisses the claims as “unacceptable” and does not present any substantial arguments or reasoning to support the rejection of Claims 1 and 8.

The rejection of dependent Claims 2-7 and 9-14 is traversed for the same reasons presented above in defense of Claims 1 and 8 and further as argued in the record.

Respectfully submitted,
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